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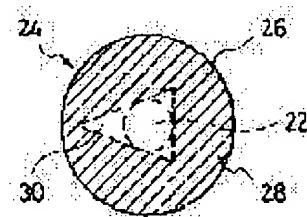
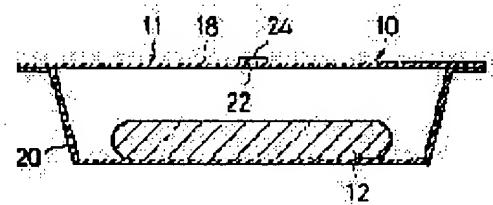
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(54) PRESSURE-REGULATING VALVE, AUTOMATIC COOKING PACKAGE HAVING THE VALVE, AND FOOD OR BEVERAGE PACKED THEREIN

(57)Abstract:

PURPOSE: To enable cooking food or preparing a beverage by means of a microwave oven or the like without further touching for the cooking or preparation after buying at retail by a method wherein a rise of the pressure inside a flexible container above a certain level causes a pressure-regulating valve in the form of a sheet to open.

CONSTITUTION: An automatic cooking package 10 consists of a flexible container 11 and a pressure-regulating valve in the form of a sheet 24. The flexible container 11 has fusion adhesion along its periphery and a hole 22 in its top sheet 18 to which the pressure-regulating valve 24 is attached by adhesion in a manner of closing the hole 22. The hole 22 is circular and the pressure-regulating valve 24 consists of a circular flexible sheet 26 which is coated with an adhesive 28 on one side and in the center has a part 30 not coated with the adhesive. When such a package 10 having the contents 12 is heated in a microwave oven or the like, an increasing pressure acts on the pressure-regulating valve 24 through the hole 22 and a rise of the pressure above a certain level causes the pressure-regulating valve 24 to release. Part of it, however, remains adhering to the container 11 and, when the pressure falls below the specified point, the pressure-regulating valve 24 resumes the adhesion as before.



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CLAIMS

[Claim(s)]

[Claim 1] the flexible container which has a hole in at least one place, and the above -- the package for automatic cooking characterized by the aforementioned sheet-like pressure regulating valve opening when it comes to have the sheet-like pressure regulating valve pasted up so that a hole might be closed and the pressure in the aforementioned flexible container becomes more than fixed

[Claim 2] The aforementioned flexible sheet is a pressure regulating valve which has [in / the aforementioned single-sided field center section / are the pressure regulating valve stuck on the flexible container which has a hole in at least one place, and this pressure regulating valve consists of the adhesives applied to the single-sided side of a flexible sheet and this flexible sheet, and] adhesives a non-applying fraction, and is characterized by this adhesives non-applying fraction being un-circular.

[Claim 3] The aforementioned adhesives non-applying fraction is a pressure regulating valve of a claim 2 whose vertical angle is an isosceles triangle 60 degrees or less.

[Claim 4] It is the pressure regulating valve which is a pressure regulating valve stuck on the flexible container which has a hole in at least one place, and is characterized by this pressure regulating valve consisting of a piece of a sheet of the non-round shape stuck on the adhesives applied to the one side side of a flexible sheet and this flexible sheet, and the single-sided field center section.

[Claim 5] The aforementioned piece of a sheet is a pressure regulating valve of a claim 4 whose vertical angle is an isosceles triangle 60 degrees or less.

[Claim 6] It is the pressure regulating valve characterized by being the pressure regulating valve stuck on the flexible container which has a hole in at least one place, and this pressure regulating valve consisting of a piece of yarn stuck on the adhesives applied to the one side side of a flexible sheet and this flexible sheet, and the one side side center section.

[Claim 7] It comes to have the sheet-like pressure regulating valve pasted up so that a hole might be closed. the flexible container which has a hole in at least one place, and the above -- The 1st package which the aforementioned sheet-like pressure regulating valve opens when the pressure in the aforementioned flexible container becomes more than fixed, It comes to have the sheet-like pressure regulating valve pasted up so that a hole might be closed. the flexible container which has a hole in at least one place, and the above -- It has the 2nd package which the aforementioned sheet-like pressure regulating valve opens when the pressure in the aforementioned flexible container becomes more than fixed. It is the eating-and-drinking article with which, as for the 1st aforementioned package, cooking liquid is enclosed into it, and the 2nd aforementioned package is characterized by enclosing an eating-and-drinking article and the 1st aforementioned package into it and which was packed with the package for automatic cooking.

[Claim 8] the flexible container which has a hole in at least one place, and the above -- the eating-and-drinking article packed with the package for automatic cooking characterized by to enclose the piece of ice, and a freezing eating-and-drinking article into the package which the aforementioned sheet-like pressure regulating valve opens when it comes to have the sheet-like pressure regulating valve pasted up so that a hole might be closed and the pressure in the aforementioned flexible container becomes more than fixed

[Claim 9] The eating-and-drinking article packed with the package for automatic cooking of a claim 8 whose aforementioned piece of ice contains a seasoning.

[Claim 10] It comes to have the sheet-like pressure regulating valve pasted up so that a hole might be closed. the flexible container which has a hole in at least one place, and the above -- The 1st package which the aforementioned sheet-like pressure regulating valve opens when the pressure in the aforementioned flexible container becomes more than fixed, It comes to have the sheet-like pressure regulating valve pasted up so that a hole might be closed. the flexible container which has a hole in at least one place, and the above -- It has the 2nd package which the

aforementioned sheet-like pressure regulating valve opens when the pressure in the aforementioned flexible container becomes more than fixed. It is the eating-and-drinking article with which, as for the 1st aforementioned package, the un-freezing nature seasoning is enclosed into it, and the 2nd aforementioned package is characterized by enclosing a freezing eating-and-drinking article, the piece of ice, and the 1st aforementioned package into it and which was packed with the package for automatic cooking.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] this invention relates to the package for automatic cooking which gave the function of cookware to the package of an eating-and-drinking article. this invention relates to the pressure regulating valve again used for the above packages for automatic cooking. this invention relates to the eating-and-drinking article packed with the still above packages for automatic cooking.

[0002]

[Description of the Prior Art] Although the function required of the package of an eating-and-drinking article changes with modalities of the eating-and-drinking article, generally it is to the exhibition function of fundamental functions, such as packing of an eating-and-drinking article, transportation, an archive, a store, and a freshness hold, and goods, the need increase function which appeals to a visual sense and promotes sale, and the advertising advertisement function of goods. The perishable food which was brought home at the home in the case of a perishable food [like fishes or meat] whose eating-and-drinking article is is cooked using cookware, such as a pan and a frying pan, after taking out from a package. A package is usually discarded as it is. In the case of a workpiece like the frozen goods by which the seasoning manipulation was carried out, or a pouch-packed food, an eating-and-drinking article is cooked using the heat release cookware like boiling water or a microwave oven. Also in this case, a package is usually discarded as it is.

[0003]

[Problem(s) to be Solved by the Invention] If it sees from the need person of an eating-and-drinking article, the conventional package is for only packing the eating-and-drinking article. Although there is an eating-and-drinking article which can be cooked with the packing status, in order to avoid rupture of a package etc., a hole must be opened in a package or, usually an eating-and-drinking article must be moved to another tableware, such as a pan. As mentioned above, the conventional package does not come out of the frame of mere packing of an eating-and-drinking article.

[0004] this invention is made for the purpose of giving the function as cookware to the package, after holding the conventional function as a package of an eating-and-drinking article as it was. The purpose of this invention is offering the package for automatic cooking which can cook an eating-and-drinking article using a microwave oven etc., without adding a hand in any way with the status that the eating-and-drinking article was purchased. Other purposes of this invention are offering the pressure regulating valve used for the aforementioned package for automatic cooking. The purpose of further others of this invention is in a home, a station, a dining-room, a train, the aircraft, and a vessel etc., and is offering the eating-and-drinking article packed with the aforementioned package for automatic cooking which can cook simply as it is and simple.

[0005]

[Means for Solving the Problem] the flexible container with which this invention has a hole in at least one place, and the above -- when it came to have the sheet-like pressure regulating valve pasted up so that a hole might be closed and the pressure in the aforementioned flexible container became more than fixed, the aforementioned technical problem was solved by the package for automatic cooking which the aforementioned sheet-like pressure regulating valve opens

[0006]

[Function] The package for automatic cooking of this invention mainly carries out for an eating-and-drinking article. As an example of an eating-and-drinking article, there are the perishable foods like fishes or meat and these frozen goodss, the material like vegetables or noodles itself, the workpieces like Chinese **** or beef stew, these frozen goodss, other luxury goods, etc. as for the fundamental function as a conventional package etc., the package for

automatic cooking remains as it is -- implement ***** Therefore, there is no place which changes transportation in the status that the above-mentioned eating-and-drinking article was enclosed, an archive, exhibition, etc. in any way with the conventional package.

[0007] The package for automatic cooking of this invention has a function as cookware further. The need person who brought home at the home etc. the package for automatic cooking which enclosed the eating-and-drinking article can cook the eating-and-drinking article as it is using heat release cooking machines, such as a microwave oven. It is also unnecessary for it not to be necessary to open the package for automatic cooking and, and to open a hole. Furthermore, cookware, such as a pan and a frying pan, is not needed, either.

[0008] If the package for automatic cooking is put in and heated to a heat release cooking machine, moisture will evaporate from the eating-and-drinking article which is a contents, and the pressure in a package will increase. A flexible container expands. A pressure acts on the sheet-like pressure regulating valve pasted up on the flexible container through the hole. If the pressure in a package exceeds a predetermined pressure, a sheet-like pressure regulating valve will separate and an internal pressure will be decreased. If a pressure decreases, a sheet-like pressure regulating valve will be again pasted up on a container, and the pressure in a container will be kept constant. The pressure in a container can be adjusted by choosing the adhesive power of a sheet-like pressure regulating valve, and the diameter of a hole.

[0009] A pressure regulating valve consists of the adhesives applied to the single-sided field of a flexible sheet and this flexible sheet, the aforementioned flexible sheet has adhesives a non-applying fraction in the aforementioned single-sided field center section, and this the adhesives non-applying fraction is un-circular. And as for adhesives a non-applying fraction, it is desirable that a vertical angle is an isosceles triangle 60 degrees or less.

[0010] A pressure regulating valve is stuck so that the adhesives non-applying fraction may cover the hole of a flexible container. If the pressure in a flexible container increases, the pressure will act also on a pressure regulating valve. Since the adhesives non-applying fraction is un-circular, a pressure acts unequally. For example, if adhesives non-applying fractions are the above isosceles triangles, a pressure tends to remove adhesion from the oblique side of an isosceles triangle. Peeling of adhesion begins from an oblique side comparatively longer than a base, and advances toward the orientation of a vertical angle. If peeling of adhesion progresses, a pressure regulating valve will be set in part and will separate from a flexible container. However, the flexible container has been pasted in a base. A free passage of the interior of a flexible container and the open air reduces the pressure inside a flexible container. Then, a flexible container is pasted again and a pressure regulating valve holds an internal pressure uniformly.

[0011] Other pressure regulating valves consist of a piece of a sheet of the non-round shape stuck on the adhesives applied to the one side side of a flexible sheet and this flexible sheet, and the single-sided field center section. And as for the piece of a sheet, it is desirable that a vertical angle is an isosceles triangle 60 degrees or less.

[0012] This pressure regulating valve is stuck so that the piece of a sheet may cover the hole of a flexible container. If the pressure in a flexible container increases, the pressure will act also on a pressure regulating valve. Since the piece of a sheet is un-circular, the pressure resulting from the gas leaked from between a flexible container and the pieces of a sheet acts unequally. For example, if the pieces of a sheet are the above isosceles triangles, a pressure tends to remove adhesion from the oblique side of an isosceles triangle. Peeling of adhesion begins from an oblique side comparatively longer than a base, and advances toward the orientation of a vertical angle. If peeling of adhesion progresses, a pressure regulating valve will be set in part and will separate from a flexible container. However, the flexible container has been pasted in a base. A free passage of the interior of a flexible container and the open air reduces the pressure inside a flexible container. Then, a flexible container is pasted again and a pressure regulating valve holds an internal pressure uniformly.

[0013] The pressure regulating valve of further others consists of a piece of yarn stuck on the adhesives applied to the one side side of a flexible sheet and this flexible sheet, and the one side side center section.

[0014] This pressure regulating valve is stuck so that the piece of yarn may straddle the hole of a flexible container. If the pressure in a flexible container increases, the pressure will act also on a pressure regulating valve. A pressure advances peeling of adhesion in parallel with the piece of yarn. If peeling of adhesion progresses, a pressure regulating valve will be set in part and will separate from a flexible container. A free passage of the interior of a flexible container and the open air reduces the pressure inside a flexible container. The pressure regulating valve in this case reduces the pressure in a flexible container as it is, without pasting up again.

[0015] Various eating-and-drinking articles can be packed using the above-mentioned package for automatic cooking. It is also possible to pack a perishable food ordinarily. Furthermore, constituting as follows is possible.

[0016] The 1st small package and eating-and-drinking article containing cooking liquid are enclosed with the 2nd big package, and exhibition and selling are possible. If the 2nd whole package is heated with a heat release cooking

machine, the cooking liquid in the 1st package will boil first. The pressure in the 1st package increases and a pressure regulating valve is opened wide. The cooking liquid in the 1st package flows into the 2nd package in the status that it boiled. The eating-and-drinking article in the 2nd package is cooked as it is the heat release cooking inside of a plane and within a flexible container. If cooking liquid is water -- a steamed cake -- becoming -- cooking liquid -- soup -- it takes out and comes out, and it will become **** if it is

[0017] The piece of ice and a freezing eating-and-drinking article are enclosed with a package, and exhibition and selling are possible. If the whole package is heated with a heat release cooking machine, the piece of ice solves and it becomes water, and this water will boil and it will become a steam further. The pressure in a flexible container is adjusted by the pressure regulating valve, and an eating-and-drinking article is cooked by moderate temperature and a moderate pressure. When the piece of ice is mere ice, this product serves as a steamed cake. If a seasoning is included in the piece of ice, the piece of ice will serve as soup and bare feet, and seasoning will be carried out with heating. This product is suitable for ***.

[0018] The 1st small package and eating-and-drinking article containing the un-freezing nature seasoning, and the piece of ice are enclosed with the 2nd big package, and exhibition and selling are possible. If the 2nd whole package is heated with a heat release cooking machine, the seasoning in the 1st package will boil, the pressure in the 1st package will increase, and a pressure regulating valve will be opened wide. The cooking liquid in the 1st package flows into the 2nd package in the status that it boiled. Simultaneously, the piece of ice solves, serves as water, and this water boils it and it serves as a steam further. A seasoning and water are intermingled, and become moderate concentration and the eating-and-drinking article in the 2nd package is cooked as it is the heat release cooking inside of a plane and within a flexible container. This invention is useful when a seasoning is the thing of the un-freezing nature like concentration soup. Adjustment of concentration is performed by adjustment of the amount of enclosure of an un-freezing nature seasoning, or the amount of enclosure of the piece of ice.

[0019]

[Example] In drawing 1, a sign 10 is a package for automatic cooking. The package for automatic cooking 10 consists of a flexible container 11 and a sheet-like pressure regulating valve 24. A sign 12 is a contents. The flexible container 11 comes to have the inferior-surface-of-tongue sheet 20 which consists the inside polyethylene sheet 14 and the outside polypropylene sheet 16 of a pasting ***** top sheet 18 and a polypropylene sheet 16, as shown in drawing 2. The periphery is welded and the flexible container 11 has become bag-like. The hole 22 is formed in the flexible container 11 in the single-sided side. It pastes up so that a pressure regulating valve 24 may close a hole 22.

[0020] The drawing 3 and the drawing 4 are package 10 for automatic cooking' of other structures. this -- automatic -- cooking -- ** -- a package -- ten -- ' -- the inside -- polyethylene -- a sheet -- 14 -- an outside -- polypropylene -- a sheet -- 16 -- pasting -- ***** -- a top -- a sheet -- 18 -- ' -- and -- a inferior surface of tongue -- a sheet -- 20 -- ' -- the periphery -- having welded -- flexibility -- a container -- 11 -- ' -- having -- becoming . a pressure regulating valve 24 is the same -- it is

[0021] The drawing 5 and the drawing 6 show the hole 22 and the pressure regulating valve 24 in detail. The hole 22 is hard to produce stress concentration and is circular. A pressure regulating valve 24 consists of a flexible circular sheet 26 and the adhesives 28 applied to the single-sided side. In drawing 6, the oblique-line section shows the field which the pressure regulating valve 24 has pasted up on the flexible container 11 by the binder (in the following and the same drawing, it is the same). As for the pressure regulating valve 24, the adhesives non-applying fraction 30 is formed in the center section. As for adhesives 28, it is desirable to select from what has adhesive power in -20 degree C or 140 degrees C. In this example, UVCAT1300/S (imperial ink incorporated company make) is used as adhesives 28.

[0022] The adhesives non-applying fraction 30 is un-circular, and, in the case of this example, a vertical angle is an isosceles triangle 60 degrees or less. The adhesives non-applying fraction 30 has the area which includes a hole 22, and a hole 22 counters with the adhesives non-applying fraction 30. A contents 12 does not touch adhesives and the sanitation of food is maintained by this configuration.

[0023] The package for automatic cooking 10 has a function as cookware other than the function as a conventional package. The operation is explained with reference to the drawing 7 or the drawing 9.

[0024] Drawing 7 (a), (b), and (c) show the status that put the package for automatic cooking 10 which enclosed the contents shown in drawing 1 into heat release cooking machines, such as a microwave oven, and it carried out ***** heating. By the thermal radiation ray, the moisture of a contents 12 evaporates, and serves as a steam, and the pressure in the flexible container 11 increases it. A pressure regulating valve 24 does not have change of what, and makes the pressure in the flexible container 11 increase.

[0025] Heating progresses, moisture serves as a steam further, and drawing 8 (a), (b), and (c) show the status that the pressure in the flexible container 11 increased. It convects, a part liquefies the inside of the flexible container 11, and

the base in the flexible container 11 is covered with a steam. The pressure which increases gradually acts on a pressure regulating valve 24 gradually through a hole 22. Peeling of adhesion starts. Peeling of adhesion is produced in the oblique side 34 longer than the piece 32 of the base.

[0026] Drawing 9 (a), (b), and (c) show the status that the pressure in the flexible container 11 rose further. Since the vertical angle of the adhesives non-applying fraction 30 is an isosceles triangle 60 degrees or less, as for peeling of adhesion, the directivity and directivity to a vertical angle are guaranteed.

[0027] The pressure in the flexible container 11 becomes more than fixed, and drawing 10 (a), (b), and (c) show the status that the pressure regulating valve 24 separated. The pressure in the flexible container 11 decreases. However, as illustrated, the pressure regulating valve 24 remains, while the part had pasted the outside surface of the flexible container 11. If it becomes below a predetermined pressure, a pressure regulating valve 24 will be again pasted up on the flexible container 11.

[0028] The configuration of a pressure regulating valve 24 is not limited circularly. Drawing 11 (a), (b), and (As shown in c), (d), and (e), thing 24e of 24d of the things of square thing 24a, triangular thing 24b, thing 24c of an ellipse form, and a rectangle and other polygons is sufficient. In addition, since the flexible container 11 is pasted, it is desirable [a pressure regulating valve 24] to round off an angle so that stress concentration may not arise in the flexible container 11.

[0029] Moreover, T typeface or a cross is sufficient as the configuration of the adhesives non-applying fraction 30 of a pressure regulating valve 24. However, it is desirable that a vertical angle is an isosceles triangle 60 degrees or less.

[0030] Drawing 12 (a), (b), and (c) show the example of other pressure regulating valves. The pressure regulating valve 124 of this example consists of a piece 130 of a sheet of the flexible circular sheet 126, the adhesives 128 applied to the one side side, and the non-round shape stuck on the single-sided field center section. In the case of this example, the vertical angle of the piece 130 of a sheet is an isosceles triangle 60 degrees or less. The piece 130 of a sheet has the area which includes the hole 22 of the flexible container 11, and a hole 22 counters with the piece 130 of a sheet.

[0031] Drawing 13 (a), (b), and (c) show the example of other pressure regulating valves. The pressure regulating valve 224 of this example consists of a piece 230 of yarn stuck on the single-sided side center section so that the flexible circular sheet 226, the adhesives 228 applied to the one side side, and the hole 22 of the flexible container 11 might be straddled. the piece 230 of yarn -- the center of a hole 22 -- receiving -- right and left -- it has an unequal length The pressure regulating valve 224 of this example advances peeling of adhesion in parallel with the piece of yarn. In this case, peeling of adhesion advances notably to the longer one (left in drawing). Moreover, the pressure regulating valve 224 of this example is useful for the intended use which only makes it open by not pasting the flexible container 11 again after peeling of adhesion.

[0032] Drawing 14 (a), (b), and (c) show the example of other pressure regulating valves. The pressure regulating valve 324 of this example consists of the flexible circular sheet 326, adhesives 328 applied to the one side side, and adhesives a non-applying fraction 330 penetrated in the orientation of a path in a single-sided field. The adhesives non-applying fraction 330 is the structure of making the open air opening for free passage in the flexible container 11 from the first stage. For example, if two holes are prepared in a flexible container, a pressure regulating valve 324 is pasted up on one hole from the outside of a flexible container and a pressure regulating valve 324 is pasted up on the hole of another side from the inside of a flexible container, the package which realizes the both sides of inhalation of air and exhaust air can be obtained.

[0033] The drawing 15 or the drawing 20 shows the 1st or 6th example of the eating-and-drinking article packed with the package for automatic cooking. The eating-and-drinking article packed is like throats, such as a perishable food, a fresh frozen foods, or a processed food.

[0034] The contents in drawing 15 is a cone. The thing and pressure regulating valve the package for automatic cooking was indicated to be to the drawing 3 and the drawing 4 are shown in the drawing 5 and the drawing 6 . Also in the following examples, it is the same. The package for automatic cooking 110 has enclosed the nonwoven fabric 113 other than a cone 112. A nonwoven fabric 113 has the function to adjust the moisture in the flexible container 111.

[0035] The eating-and-drinking article shown in drawing 16 is a larmen. In the package for automatic cooking 110, the raw noodles 200 and package 110a for automatic cooking are enclosed. Soup is enclosed with package 110a for automatic cooking. The sense of pressure regulating valves 24 and 24 is opposite at the package for automatic cooking 110, and package 110a for automatic cooking.

[0036] If the package for automatic cooking 110 is put in and heated to a microwave oven, the soup in small package 110a for automatic cooking will be heated first, it will evaporate, and an internal pressure will increase. And a pressure regulating valve 24 separates and soup flows out in the package for automatic cooking 110. Since the pressure in package 110a for automatic cooking continues increasing, all soup flows out in the package for automatic cooking 110.

Furthermore, if heated, soup will be boiled within the package for automatic cooking 110, and will boil up raw noodles. At this time, a pressure regulating valve 24 adjusts the pressure in the package for automatic cooking 110.

[0037] A larmen will be done, if the package for automatic cooking 110 is opened and it moves to tableware, such as a ball, after carrying out predetermined time heating. It is also possible to enclose **'s, such as a Welsh onion and roast pork, in the package for automatic cooking 110. Since no cookware is used, it can cook very simple.

[0038] The eating-and-drinking article shown in drawing 17 is raw fish which is a perishable food. In the package for automatic cooking 110, raw fish 202 and package 110b for automatic cooking are enclosed. Bare feet are enclosed with package 110b for automatic cooking. The sense of pressure regulating valves 24 and 24 is opposite at the package for automatic cooking 110, and package 110b for automatic cooking.

[0039] Since the cooking method is the same as that of the example shown with reference to drawing 16, it omits an explanation.

[0040] The contents in drawing 18 is a steaming pan. In the package for automatic cooking 110, baker's dough 204, the piece 206 of ice, and the nonwoven fabric 208 are enclosed. If the package for automatic cooking 110 is put in and heated to a microwave oven, the piece 206 of ice dissolves and it becomes water, and the water will be heated and will serve as a steam. A steam steams baker's dough 204. Furthermore, if heated, a pressure regulating valve 24 will separate and the pressure in the package for automatic cooking 110 will be adjusted.

[0041] The contents in drawing 19 is the frozen fish. In the package for automatic cooking 110, the piece 212 of ice containing the frozen fish 210 and the seasoning is enclosed. The piece 212 of ice is put in the nonwoven fabric 213. If the package for automatic cooking 110 is put in and heated to a microwave oven, the piece 212 of ice will dissolve, and it will be heated, and will boil. A fish 210 is boiled up. A pressure regulating valve 24 separates and the pressure in the package for automatic cooking 110 is adjusted.

[0042] The contents in drawing 20 is beef stew. In the package for automatic cooking 110, the piece 218 of ice is enclosed with ** 214 and package 110c for automatic cooking which enclosed the un-freezing nature seasoning 216. If the package for automatic cooking 110 is put in and heated to a microwave oven, while the un-freezing nature seasoning 216 will flow out of package 110c for automatic cooking, the piece 218 of ice dissolves and it becomes soup. A pressure regulating valve 24 separates and the pressure in the package for automatic cooking 110 is adjusted.

[0043] As mentioned above, according to this invention, various eating-and-drinking articles can be cooked only by heating with heat release cooking machines, such as a microwave oven, without using cookware entirely. The intended use can be extended even into cooking in a station, a train, the aircraft, and a vessel, and a dining-room, without remaining in domestic.

[0044]

[Effect of the Invention] The package for automatic cooking which is invention of a claim 1 has many functions of the conventional package as they are, and has a function as cookware still additionally. Therefore, if it sees from the position of an eating-and-drinking article vendor, the operating personnel, for example, the eating-and-drinking article manufacturer, of a package, a goods value can be remarkably raised by substituting the conventional package for the package of this invention. If it sees from the position of the need person of an eating-and-drinking article, for example, a domestic ultimate consumer, since the package for automatic cooking of this invention can be cooked only with heat release cooking machines, such as a microwave oven, it will do so the remarkable effect which is not in the conventional packages -- it is not necessary that cooking is simple and simple, that the time of cooking can be saved, to soil cookware, etc.. If it sees from the position of the person who offers an eating-and-drinking article as work like other need persons, for example, a dining-room manager, when required, only a complement can offer the eating-and-drinking article quickly. Since there is no opportunity where an eating-and-drinking article operating personnel touches the eating-and-drinking article, especially an important thing is the point that the sanitation of an eating-and-drinking article can be maintained.

[0045] And a pressure regulating valve guarantees the cooking environment suitable for the eating-and-drinking article which is a contents. The pressure in a package has delicate influence on the taste of an eating-and-drinking article among cooking environments. Since the package for automatic cooking of this invention holds the pressure uniformly, especially in the case of a perishable food [like fishes or meat] whose eating-and-drinking article is, cooking which harnessed the taste of the material [itself] can be performed.

[0046] The pressure regulating valve of claims 2 and 4 has the un-circular configuration of adhesives a non-applying fraction. Since a pressure acts on a pressure regulating valve unequally, peeling of adhesion advances with a directivity and directivity. When adhesion separates, as for a pressure regulating valve, the part is held on a flexible container. Peeling of adhesion is produced more than a predetermined pressure, and the adhesion status will be reproduced if it becomes below a predetermined pressure. Thus, since aeration and non-aeration carry out alternation with a pressure,

the pressure in a flexible container is kept constant and can maintain the pressure suitable for cooking of an eating-and-drinking article. Moreover, since it sets in part and the flexible container is surely pasted, the pressure regulating valve does not mix a pressure regulating valve in an eating-and-drinking article.

[0047] In the pressure regulating valve of claims 3 and 5, the adhesives non-applying fraction serves as the configuration where it was most suitable for peeling, and its directivity and directivity of adhesion.

[0048] The pressure regulating valve of a claim 6 prepares the piece of yarn over a hole in a part of adhesives applied to the one side side of a flexible sheet. If the pressure more than a predetermined pressure acts on a pressure regulating valve, peeling of adhesion will advance in parallel with the piece of yarn, as a result the open air will carry out aeration in a flexible container. Since the adhesion status is not reproduced, this pressure regulating valve is useful for the intended use for which flexible container internal pressure is reduced as it is.

[0049] The eating-and-drinking article of the claim 7 or the claim 10 is pertinently packed according to a modality and a cooking method.

[0050] The eating-and-drinking article of a claim 7 is an eating-and-drinking article constituted the object for steamed cakes, and for ****. It is useful when a contents is a fresh article. For example, it is suitable, when cooking ****, using a fish as a contents when baker's dough is steamed as a contents and it cooks a pan, or when cooking a larmen warm as a contents for noodles. Since heat release cooking machines, such as a microwave oven, act on moisture, cooking liquid required for moisture or **** required for a steamed cake boils them previously, and they flow out of the 1st package in the 2nd package. An eating-and-drinking article is cooked with water, the boiling steam, or boiling cooking liquid. Since materials required for cooking are enclosed [no] the neither more nor less and a cooking method changes with need persons, the cooking article of the uniform taste and a uniform cooking condition can be obtained. Cookware is [that after cooking opens the 2nd package and should just move a cooked eating-and-drinking article to tableware, such as a pan,] unnecessary entirely.

[0051] Although the eating-and-drinking article of claims 8 and 9 is an eating-and-drinking article constituted the object for steamed cakes, and for **** like the eating-and-drinking article of a claim 7, it is constituted for freezing eating-and-drinking articles. By carrying out to freezing, moisture can be enclosed with a package with a contents in the state of a freeze. Since materials required for cooking are enclosed [no] the neither more nor less and a cooking method changes with need persons, the cooking article of the uniform taste and a uniform cooking condition can be obtained. Cookware is [that after cooking opens the 2nd package and should just move a cooked eating-and-drinking article to tableware, such as a pan,] unnecessary entirely. Adjustment of moisture can be adjusted in the amount of the piece of ice.

[0052] Although the eating-and-drinking article of a claim 10 was constituted for freezing eating-and-drinking articles, it is suitable for the eating-and-drinking article which needs an un-freezing nature seasoning especially. For example, it is suitable for the beef stew which needs concentration soup. Since materials required for cooking are enclosed [no] the neither more nor less and a cooking method changes with need persons, the cooking article of the uniform taste and a uniform cooking condition can be obtained. Cookware is [that after cooking opens the 2nd package and should just move a cooked eating-and-drinking article to tableware, such as a pan,] unnecessary entirely. Adjustment of moisture can be adjusted in the amount of the piece of ice.

[Translation done.]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the cross section of the package for automatic cooking by this invention which enclosed the contents.

[Drawing 2] It is the expanded sectional view of the edge of the package for automatic cooking of drawing 1.

[Drawing 3] It is the cross section of the package for automatic cooking of other structures by this invention.

[Drawing 4] It is the expanded sectional view of the edge of the package for automatic cooking of drawing 3.

[Drawing 5] It is an important section expanded sectional view near the pressure regulating valve of the package for automatic cooking of drawing 1.

[Drawing 6] It is the plan of drawing 5.

[Drawing 7] The package for automatic cooking of the drawing 1 immediately after beginning heating with a heat release cooking machine is shown, and (a) is [the cross section near the pressure regulating valve and (c of the cross section of the package for automatic cooking and (b))] the plans of a pressure regulating valve.

[Drawing 8] With the heat release cooking machine, heating is begun, the package for automatic cooking of the drawing 1 in ** combs ***** is shown, and (a) is [the cross section near the pressure regulating valve and (c of the cross section of the package for automatic cooking and (b))] the plans of a pressure regulating valve.

[Drawing 9] The package for automatic cooking of the drawing 1 in the status that heating was progressed further is shown from the status of drawing 8, and (a) is [the cross section near the pressure regulating valve and (c of the cross section of the package for automatic cooking and (b))] the plans of a pressure regulating valve.

[Drawing 10] Heating progresses further from the status of drawing 9, the package for automatic cooking of the drawing 1 in the status that adhesion of a pressure regulating valve was separated is shown, and (a) is [the cross section near the pressure regulating valve and (c of the cross section of the package for automatic cooking and (b))] the plans of a pressure regulating valve.

[Drawing 11] (a), (b), (c), (d), (e), and (f) are the plans showing the pressure regulating valve of other configurations, respectively.

[Drawing 12] Other pressure regulating valves are shown and (a) is [a plan and (c of the a-a line cross section of (b) and (b))] the c-c line cross sections of (b).

[Drawing 13] The pressure regulating valve of further others is shown and (a) is [a plan and (c of the a-a line cross section of (b) and (b))] the c-c line cross sections of (b).

[Drawing 14] The pressure regulating valve of further others is shown and (a) is [a plan and (c of the a-a line cross section of (b) and (b))] the c-c line cross sections of (b).

[Drawing 15] With the cross section of the 1st example showing the eating-and-drinking article packed with the package for automatic cooking by this invention, (a), (b), (c), and (d) show with time a mode that the package for automatic cooking, a pressure regulating valve, and an eating-and-drinking article change, respectively, as heating progresses.

[Drawing 16] With the cross section of the 2nd example showing the eating-and-drinking article packed with the package for automatic cooking by this invention, (a), (b), (c), and (d) show with time a mode that the package for automatic cooking, a pressure regulating valve, and an eating-and-drinking article change, respectively, as heating progresses.

[Drawing 17] With the cross section of the 3rd example showing the eating-and-drinking article packed with the package for automatic cooking by this invention, (a), (b), (c), and (d) show with time a mode that the package for automatic cooking, a pressure regulating valve, and an eating-and-drinking article change, respectively, as heating progresses.

[Drawing 18] With the cross section of the 4th example showing the eating-and-drinking article packed with the

package for automatic cooking by this invention, (a), (b), (c), and (d) show with time a mode that the package for automatic cooking, a pressure regulating valve, and an eating-and-drinking article change, respectively, as heating progresses.

[Drawing 19] With the cross section of the 5th example showing the eating-and-drinking article packed with the package for automatic cooking by this invention, (a), (b), (c), and (d) show with time a mode that the package for automatic cooking, a pressure regulating valve, and an eating-and-drinking article change, respectively, as heating progresses.

[Drawing 20] With the cross section of the 6th example showing the eating-and-drinking article packed with the package for automatic cooking by this invention, (a), (b), (c), and (d) show with time a mode that the package for automatic cooking, a pressure regulating valve, and an eating-and-drinking article change, respectively, as heating progresses.

[Description of Notations]

10, 10', 110, 110a, 110b Package for automatic cooking

11, 11', 111 Flexible container

12, 112, 200, 202, 204, 210, 214 Contents

22 Hole

24, 24a, 24b, 24c, 24d, 24e, 24f, 124, 224, 324 Pressure regulating valve

26, 126, 226, 326 Flexible sheet

28, 128, 228, 328 Adhesives

30, 330 Adhesives non-applying fraction

130 Piece of Sheet

206, 212, 218 Piece of ice

230 Piece of Yarn

[Translation done.]

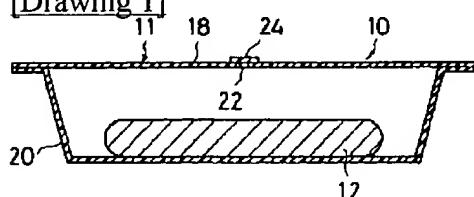
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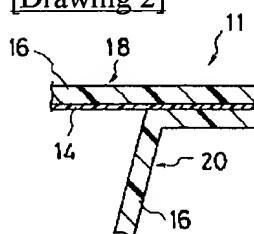
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DRAWINGS

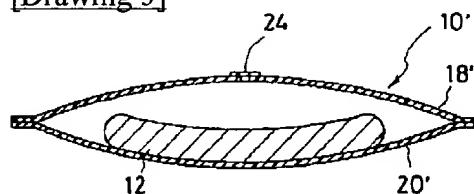
[Drawing 1]



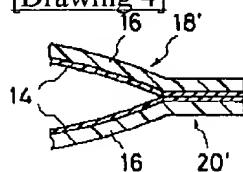
[Drawing 2]



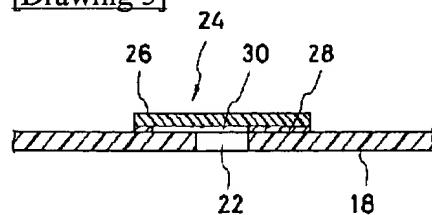
[Drawing 3]



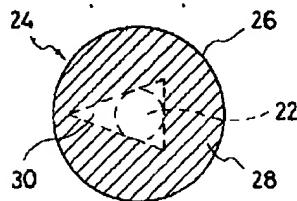
[Drawing 4]



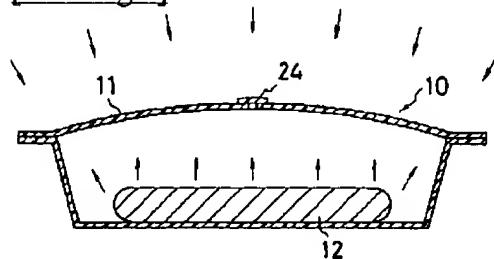
[Drawing 5]



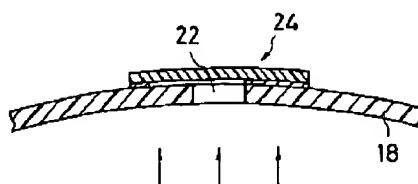
[Drawing 6]



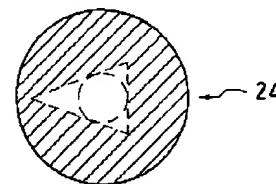
[Drawing 7]



(a)

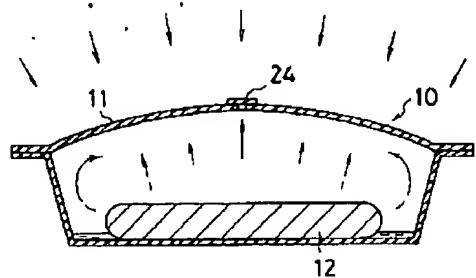


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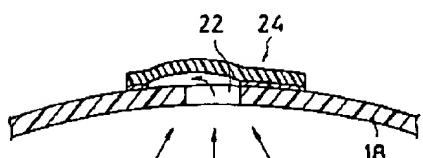


(c)

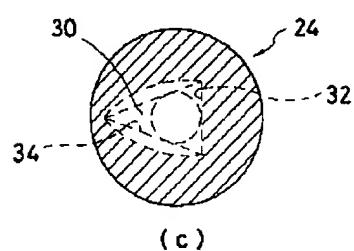
[Drawing 8]



(a)

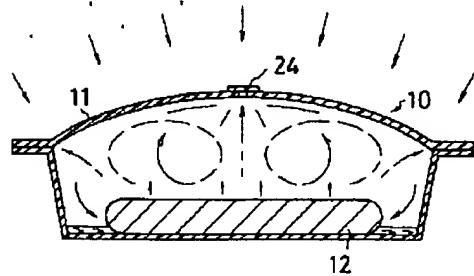


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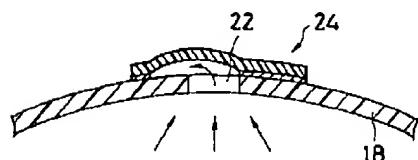


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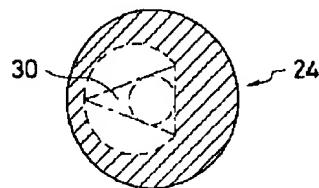
[Drawing 9]



(a)

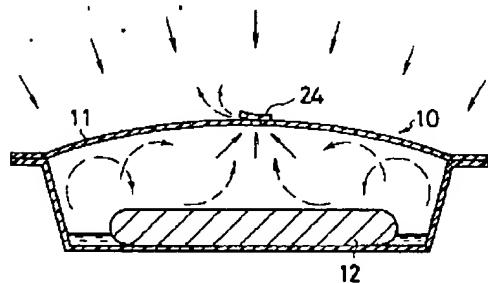


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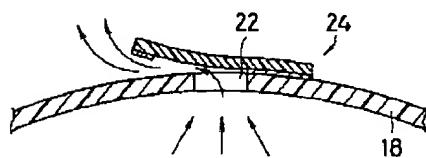


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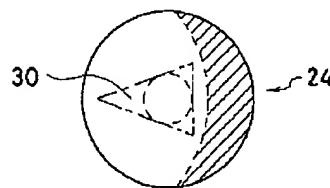
[Drawing 10]



(a)

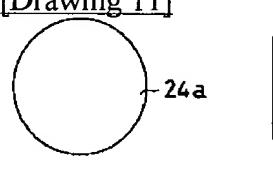


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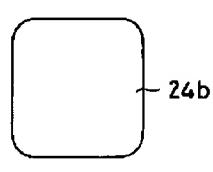


(c)

[Drawing 11]



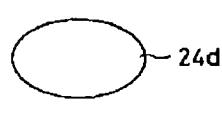
(a)



(b)



(c)



(d)



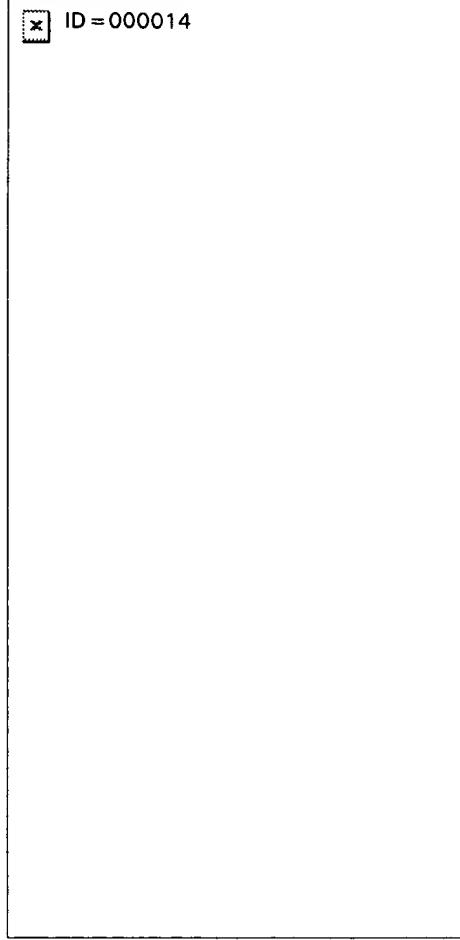
(e)



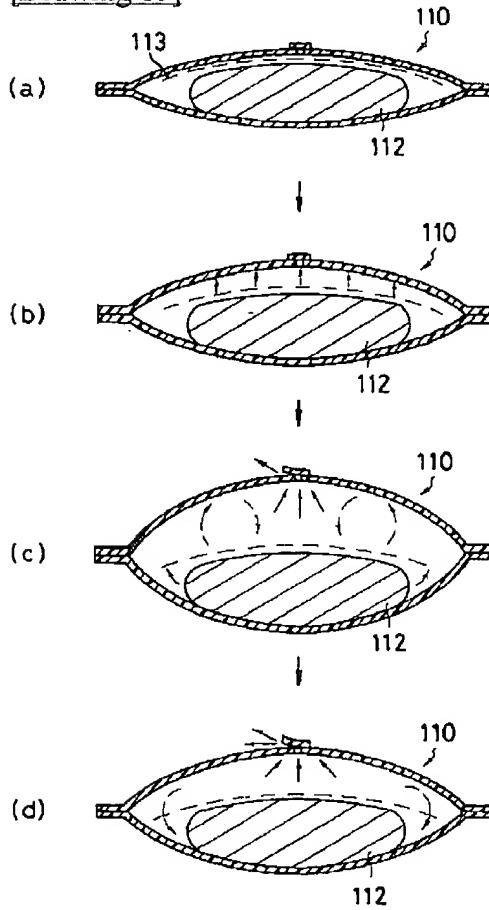
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[Drawing 12]

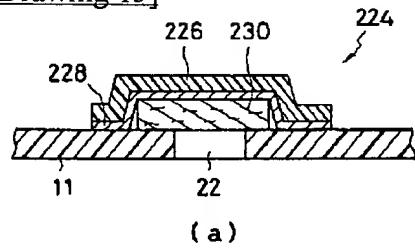
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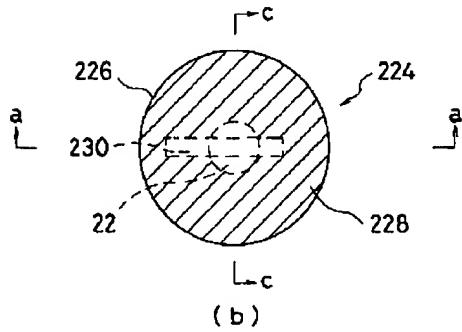
[Drawing 15]



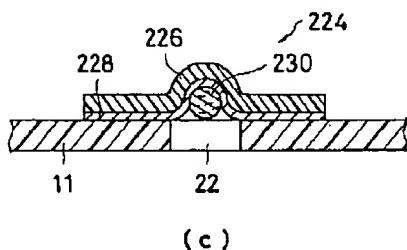
[Drawing 13]



(a)

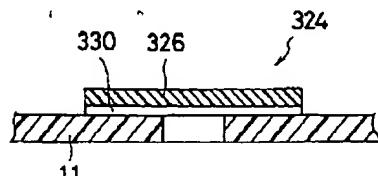


(b)

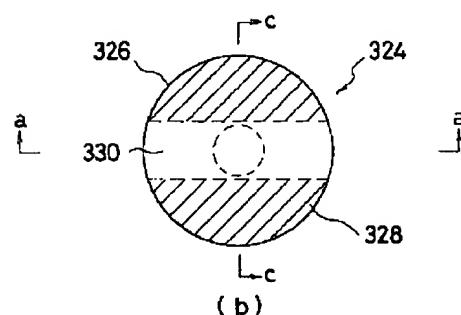


(c)

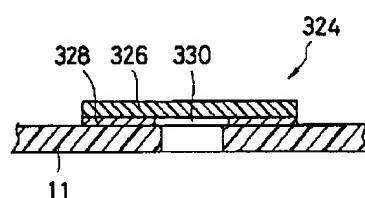
[Drawing 14]



(a)

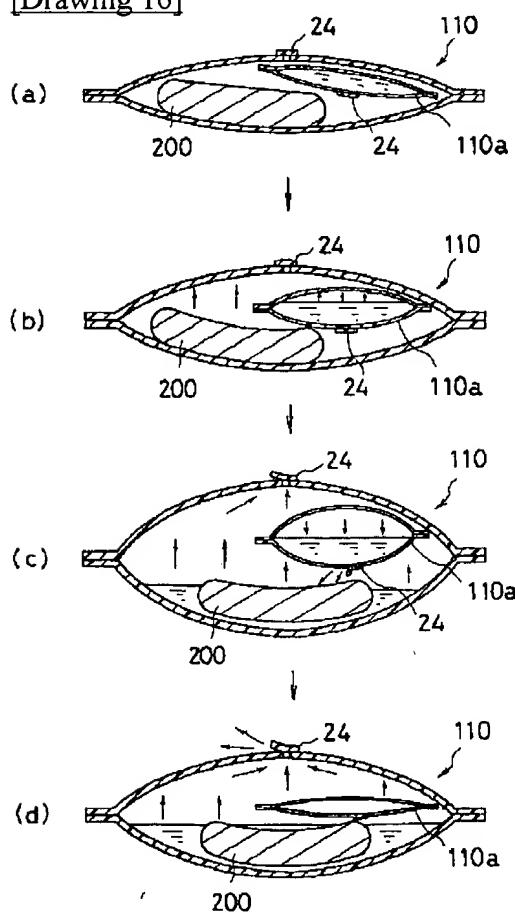


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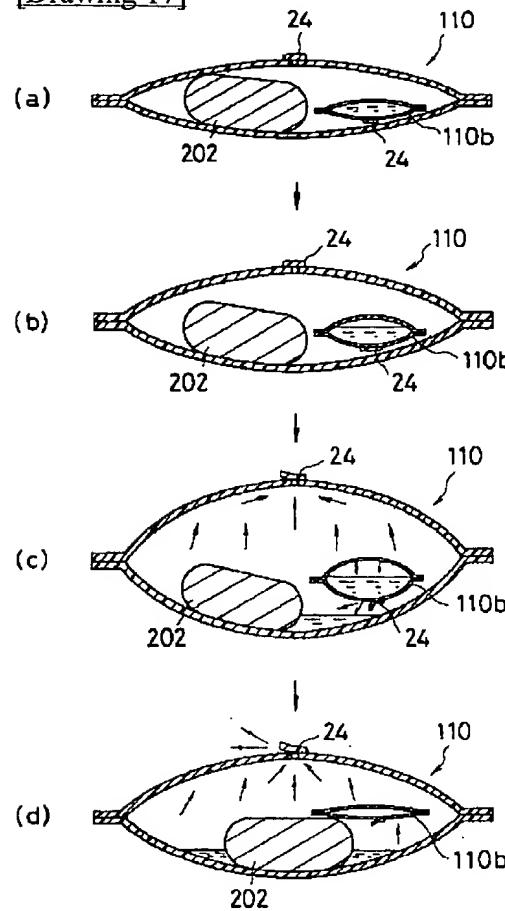


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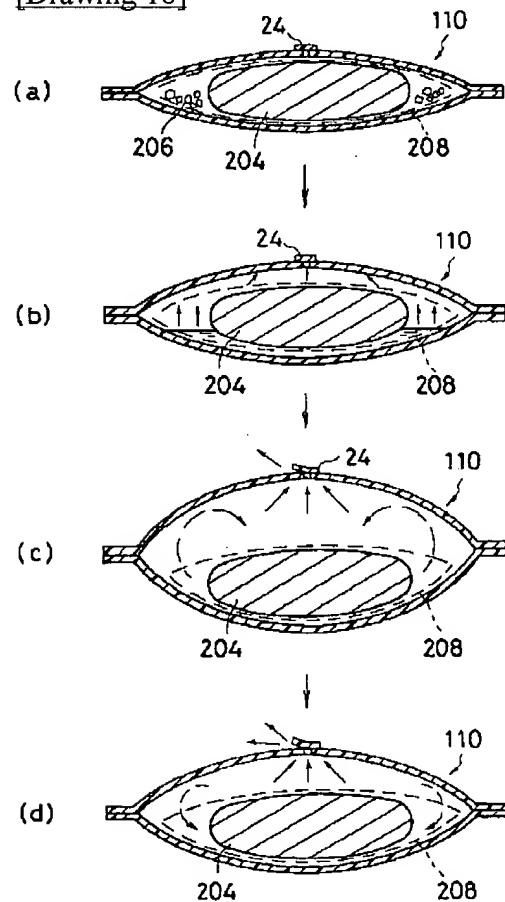
[Drawing 16]



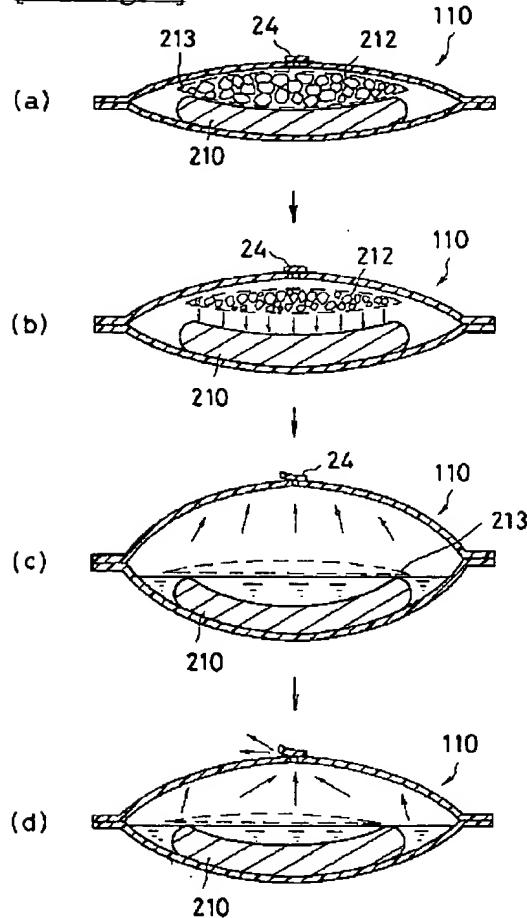
[Drawing 17]



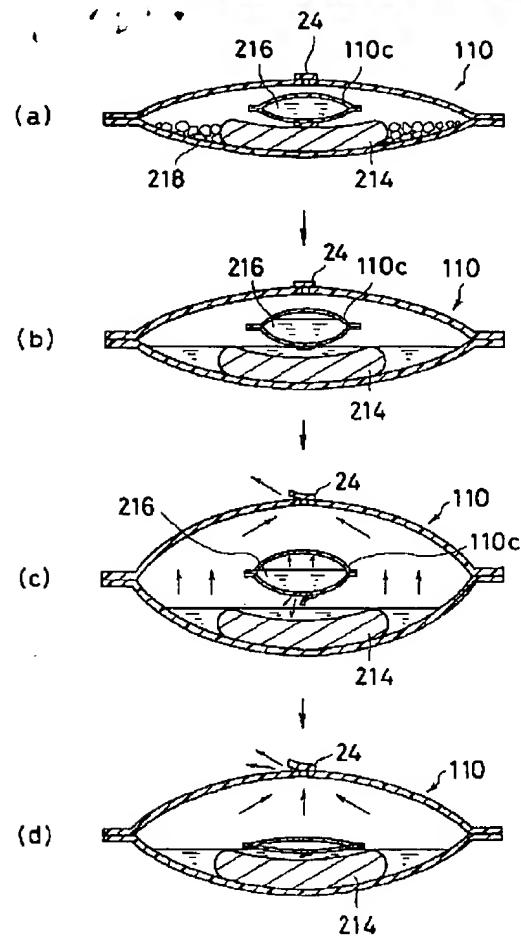
[Drawing 18]



[Drawing 19]



[Drawing 20]



[Translation done.]